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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/584,830

06/27/2006

Luciano Salice

SALICE-1 PCT

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EXAMINER

MORGAN, EMILY M

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/584,830	Applicant(s) SALICE, LUCIANO	
	Examiner EMILY M. MORGAN	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-27 is/are pending in the application.
- 4a) Of the above claim(s) 18, 19, 23 and 25-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-17, 20-22 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 May 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 14-17, 20-22, 24 are objected to because of the following informalities:
Independent claim 14 states a "...housing comprising a lid element separate..." but does not disclose the lid element in the specification. Appropriate correction is required.

For expediency, Examiner called Attorney of record Edward Callaghan on 6/15/2009 to clarify the "lid element". Attorney acknowledged the missing reference for "lid element" in the specification, and directed the examiner's attention to part 14", present in figure 21, otherwise known as the casing, to be used in examination, rather than a missing "lid element".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14-17, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over patent 6859979 to Egger.

Regarding claim 1, Egger discloses a furniture hinge (for cabinet fitting, abstract) comprising: a fixing arm 2 for fixing to a piece of furniture, means for fixing to a door of said piece of furniture, incorporating a cup 5, first 4 and second 3 rockers, forming an

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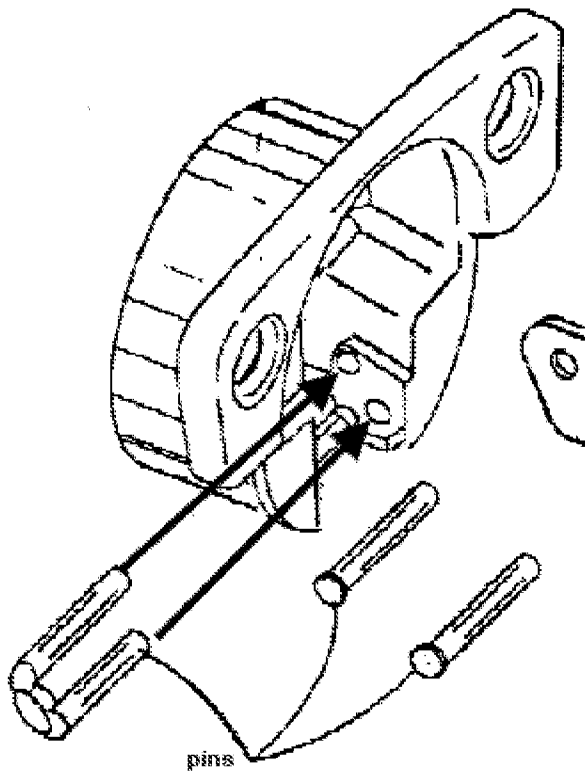
articulated quadrilateral and joining said fixing arm 2 to said cup 5 so as to allow reciprocal pivoting thereof (opening and closing the cabinet, column 1, line 53), a connection element 34 fixed to the first rocker 4, damping means 7 of said reciprocal pivoting comprising a slider 8, controlled in translation by the connection element 34 and suitable to translate according to a first direction (shown in the movements between figures 7 and 8) corresponding to a pivoting of the hinge, said slider 8 cooperating with kinematic means for motion conversion suitable to convert a translational motion of the slider into a damping pivoting motion (column 4, lines 6-12), the hinge being wherein the damping means 7 comprise a housing 6, separate from said cup 5, enclosing said slider 8, the cup 5 guiding the movement of the slider 8, damping moving elements 15, 16, and said kinematic means for motion conversion, and are provided with fast connection means 19 to said cup 5 so that said slider 8 and said damping moving elements 15, 16 are suitable to be assembled with one another with the housing 6 so that said damping means form a single element suitable to be fixed to one end of said cup in a single operation (screwing the housing 6 to the cup 5). The housing of the slider and brake plates is contained between the base plate and the hinge cup.

Egger discloses the claimed invention except for the housing comprising a casing element separate from said cup. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to make the hinge cup into two pieces, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. See MPEP 2144; *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961). The hinge cup houses the braking means

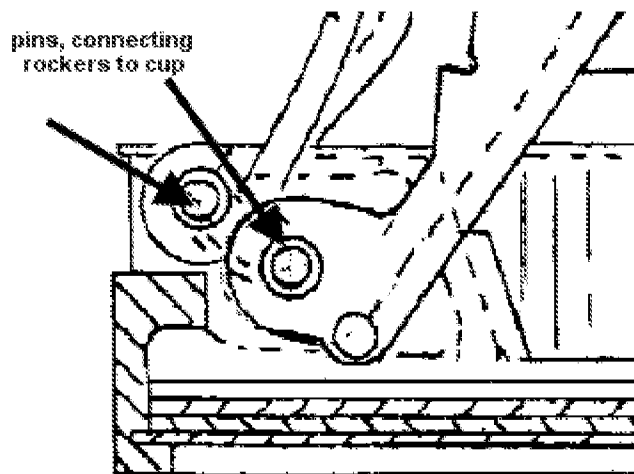
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between the base plate and the hinge cup, and also attaches to the hinge arm 2. It would have been obvious to one of ordinary skill in the art to separate the part of the hinge cup that attaches to the base plate from the part of the hinge cup that attaches to the arm. Since the braking means needs to be attached to the hinge cup to be used, they can be put together in a number of known methods in the hinge art. This way, the braking means can be easily replaced since the braking means are contained within two housing units, and the whole hinge does not have to be taken apart in order to fix or replace the parts.

Regarding claim 15, Egger discloses the hinge according to claim 14, wherein said fast connection means 19 are pins (figure 4) suitable to engage first holes of the housing and second holes of the cup. The pins are shown in figure 4 near holes in the cup, shown below. These pins are placed in the same position as the holes in the cup, so the fast connection means uses pins in holes in the cup, shown by Egger.



In the figure below, these pins are used to connect the rockers to the cup, shown in figure 2.



Egger does not disclose the pins connecting through the housing as well as the cup.

The difference between the claim and Egger is the claim recites: the pins go through the housing as well as the cup. It would have been obvious to one of ordinary skill in the art at the time the invention was made to shape the housing to accommodate the pins since it has been held that mere duplication of the essential working parts of a device involves only routine skilled the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. This would ensure that the housing stays in place. Placing the pins through the housing as well as the cup creates a second and third connection between the two articles, preventing the housing from separating. This would prevent the viscous fluid from leaking, causing damage to the hinge, as well as causing damage to the hinged article. This would be motivated by creating a duplicate connection point, ensuring that a separation between the housing and cup would not occur. In the case above, it was found that while the addition of multiple plies to the concept of the Poppe had undoubtedly made it stronger, it is not the type of innovation for which a patent monopoly is to be granted.

Regarding claim 16, Egger discloses the hinge according to claim 14, wherein said damping moving elements 15, 16 are circular in shape (figure 4), immersed in a viscous means (column 3, lines 6-7) which wets the outer surfaces thereof ("between the fixed and movable brake surfaces", column 3, line 7), and suitable to pivot about an axis perpendicular to the first direction (Egger discloses a hinge suitable to pivot around an axis perpendicular to the pins) so as to cause a braking force corresponding to

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movements of the hinge (braking force can only be created when the hinge is moved, since a static hinge creates no forces in any direction).

Regarding claim 17, Egger discloses the furniture hinge according to claim 16, wherein said damping moving elements 15, 16 comprise a flat shaped disc (figure 4).

Regarding claim 20, Egger discloses the furniture hinge according to claim 17, wherein the kinematic means for motion conversion comprise a series of grooves 24, 23, 29, 28 on the disc and a protuberance 14, 13 fixed on the slider 8 which couples engages with at least one groove (figure 5) shaped to cause rotation pivoting of the disc (abstract). Egger discloses the claimed invention except for the shape of the grooves. It would have been obvious to one having ordinary skill in the art at the time the invention as made to make the grooves a spiral, a change in the shape of a prior art device is a design consideration within the skill of the art. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Regarding claim 21, Egger discloses the furniture hinge according to claim 20, wherein the spiral grooves have profiles with saw toothed tooth sections and the protuberance on the slider has a profile with a section having a complementary shape to the profiles of the grooves. Egger discloses having saw-toothed grooves in discs in figure 10. The brake disks 35 and 38 have saw tooth grooves, and external rings 37 and 40 have complimentary saw tooth grooves. Egger also discloses the slider 8

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having a complimentary shape to grooves in the brake plates, shown in figure 5. Note that it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. See also, *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975) (the particular placement of a contact in a conductivity measuring device was held to be an obvious matter of design choice). It would have been obvious to one of ordinary skill in the art at the time of the invention to make the brake plate have saw tooth grooves within the shaped groove mentioned in claim 20, and have correspondingly shaped grooves on the slider. This would be motivated by the desire to reduce the number of parts necessary. Modifying Egger in this manner would eliminate the rings 37 and 40, since its purpose would be incorporated into the slider. Fewer pieces in the hinge would result in lesser material costs, shorter assembly and machining time, all of which would reduce the cost of manufacturing the hinge.

Claims 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egger as applied to claims above, and further in view of patent 3102311 to Martin.

Regarding claim 22, Egger discloses the furniture hinge according to claim 21, but does not disclose engaging the grooves in one direction.

Martin discloses a zip tie is a plastic article that ties items together similarly to rope. The zip tie is a quick application, wrapping the tie around the articles, inserting the end into the locking part, and pulling tight. The long end of the zip tie is covered in ridges, which is frictionally grabbed by the locking part. The long end slides through the

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locking part easily, but does not allow the long end to slide out in the opposite direction without assistance.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the uni-directional grooves of the zip tie into the hinge braking assembly of Egger. This would be motivated by creating a consumer pleasing cabinet hinge. Many consumers do not appreciate a heavy door accidentally slamming shut, creating a loud noise and possible damage to the cabinet. For purposes of expedience, braking the opening direction would be undesirable by consumers. It would be desired by the consumer to brake the door in the closing direction rather than the opening direction. In order to boost sales of a cabinet hinge, incorporating the uni-direction braking would attract consumers to this particular hinge.

Regarding claim 24, Egger as modified discloses the furniture hinge according to claim 22. As discussed in claim 21, the slider has protuberances, which would correspond to saw tooth grooves as modified with the second embodiment of Egger. This modification of Egger would produce the hinge wherein the protuberance on the slider is provided with a substantially pointed end, suitable to press on the profiles with saw tooth sections of the spiral grooves. These would interact during closing of the door starting from a partially open position of the door itself, and interact during any motion of the cabinet door.

Response to Arguments

Applicant's arguments with respect to claim 14 have been considered but are moot in view of the new ground(s) of rejection.

Regarding the separate nature of the damping elements, the modification of the hinge cup discussed above creates a separate damping element.

Regarding the sliding element of Egger, the sliding element is guided by the hinge cup, which is then separated out in the modification.

Regarding the Martin reference, Martin discloses the means for a single direction movement, and the shape of the interfacing surfaces to facilitate the single direction movement.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EMILY M. MORGAN whose telephone number is (571)270-3650. The examiner can normally be reached on Monday-Thursday, alternate Fri, 7:30am to 5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached on 571-272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert J. Sandy/
Primary Examiner, Art Unit 3677

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